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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,195	11/26/2001	Byeong-Soon Ryu	SUN-0017	7016

7590 10/05/2004
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EXAMINER

CHEN, WENPENG

ART UNIT PAPER NUMBER

2624

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/993,195	Applicant(s) RYU	
	Examiner Wenpeng Chen	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 1857 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 12/01/2000. It is noted, however, that applicant has not filed a certified copy of the Korean application as required by 35 U.S.C. 119(b). The document is not in USPTO IFW record.

Specification

2. The abstract of the disclosure is objected to because it has more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Das et al. (US patent 5,896,176.)

Das teaches an image compression device comprising:

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-- an image receiver for storing image data inputted from various kinds of image media; (compression coder of Figs. 1 and 3, and encoder of Fig. 12; column 4, line 35 to column 5, line 23)

-- a knowledge database for storing the image data to a database in an appropriate form by applying a prior knowledge; (column 7, line 18 to column 8, line 40; column 12, lines 42-58; column 13, lines 15-27; column 14, line 54 to column 15, line 52; The image is segmented into various objects with the background as object #0. Each object and coded separately based on the segmentation masks. The segmentation information such as region of interest map is the prior knowledge.)

-- a hierarchical separator for splitting each of input image into several hierarchical images, respectively, by applying an information stored in the knowledge database; (column 7, line 18 to column 8, line 40; column 12, lines 42-58; column 13, lines 15-27; column 14, line 35 to column 15, line 52; The image is segmented into various objects. The image data of these objects are hierarchical images.)

-- a hierarchical image storage for storing each of the split hierarchical images; (column 4, line 35 to column 5, line 58; The computer has memory to store images in the sequence of frames. When a frame is stored, the memory stores all the split hierarchical images and thus each of them.)

-- a hierarchical image compressor for compressing each of the split hierarchical images; (Fig. 12; column 12, line 59 to column 14, line 21; column 14, line 36 to column 15, line 52; Each object is compressed with a wavelet compressor that is a hierarchical image compressor.)

-- a compressed data storage for storing the compressed data; (column 13, line 45 to column 14, line 3; The compressed data are inherently stored in a memory in the computer after step (6), because step (7) requires to retrieve the compressed data for reconstruction. If the compressed data are not stored, step (7) cannot be performed.)

-- a decoder for decompressing and restoring the compressed data; (column 13, line 45 to column 14, line 18; The wavelet reconstruction is the decompressing process.)

-- a predicted decompression image storage for storing the restored data; (column 13, line 45 to column 14, line 18; step (9))

-- a knowledge database controller for applying the predicted decompressed image stored in the predicted decompression image storage in order to manage and update information of the knowledge database. (column 5, line 59 to column 6, line 7; column 12, lines 42-59; The difference between frame data and a reconstructed frame data is used to decide the region of interest or moving objects. The results of this decision are then presented as region of interest maps.)

The above-cited passages also teach the methods of Claims 2-3.

For Claim 4, Das further teaches:

-- wherein the image without the background image is split into a changed image and an unchanged image. (column 5, line 59 to column 6, line 6; column 10, lines 4-24; The non-background object is further divided into motion-compensation parts that are unchanged image and motion failure region that is changed part.)

For Claim 5, Das further teaches:

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-- wherein the step of updating the restored image in the knowledge database is performed such that an intermediate background image substitutes for the inputted image and initializes a grade integer to '0' where a difference between a block of the inputted image and a block corresponding to the intermediate background image is greater than a threshold value, and that the intermediate background image increases the grade integer by '1' where the difference between the block of the inputted image and the block corresponding to the intermediate background image is less than the threshold value, and that the background image updates the image of the blocks where the number of the blocks respectively having a grade integer of over a predetermined value is greater than the threshold value. (column 5, lines 45-67; column 9, lines 35-43; The object image of the moving object is an intermediate background image as defined by the Applicant. Das uses MPEG-1,2 for coding in which images are coded with I frames with each I frame followed by a predetermined number of P and/or B frames. After coding the predetermined number of P and/or B frames, images are coded as I frames for updating. Using the I and P/B frames coding sequence, the coder in the computer inherently needs to count frames after each I-frame coding and reset the count to zero when an image is coded as an I-frame again. The passage in column 9, lines 35-43 teaches that image of an object is coded as I blocks when a difference between a block of the inputted image and a block corresponding to the object image is greater than a threshold value. As a consequence of the I-blocks coding, an object image substitutes for the inputted image and the count that is a grade integer is reset to '0'.)

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 703 306-2796. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703 308-7452. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications. TC 2600's customer service number is 703-306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Wenpeng Chen
Primary Examiner
Art Unit 2624

September 27, 2004

